

WE CLAIM:

1. A computer-implemented method for selecting an adapter to transform information sent from a server object to a device and information sent from the device to the server object, comprising:

- determining a capability of the device;
- retrieving information about an adapter set based on the capability;
- using the information to determine if the adapter set is applicable to the capability; and
- if the adapter set is applicable, selecting the adapter set, wherein the adapter is selected from the adapter set.

2. The method of claim 1, wherein determining the capability of the device includes querying the device.

3. The method of claim 1, wherein determining the capability of the device includes looking up the capability in a database.

4. The method of claim 1, wherein using the information to determine whether the adapter set is applicable, comprises:

- selecting each adapter in the adapter set;
- determining if the selected adapter or any of its ancestors map to the control; and
- if the selected adapter or any of its ancestors map to the control, indicating that the adapter set is applicable.

5. The method of claim 4, wherein using the information to determine whether the adapter set is applicable, comprises:

- for each adapter set that is an ancestor of the adaptor set, performing steps, comprising:
  - selecting each adapter in the ancestor adapter set;

determining if the selected adapter or any of its ancestors map to the control;

if the selected adapter or any of its ancestors map to the control, indicating that the adapter set is applicable.

6. The method of claim 1, wherein retrieving information is performed by double dispatching.

7. A computer-readable medium having computer-executable instructions for performing the steps recited in claim 1.

8. A computer-readable medium having computer-executable instructions for transforming data sent from a server to a device and for transforming data sent from the device to the server, comprising:

determining a capability of the device;

retrieving information about an adapter set;

using the information to determine if the adapter set is applicable to the capability; and

if the adapter set is applicable, selecting the adapter set and using it to transform the data.

9. The computer-readable medium of claim 8, wherein the device transmits its capability.

10. The computer-readable medium of claim 8, wherein the capability is included in a database.

11. The computer-readable medium of claim 8, wherein an adapter set is applicable if an adapter within the adapter set or one of the adapter's ancestors maps to the control.

12. The computer-readable medium of claim 8, wherein an adapter set is applicable when an adapter within the adapter set, an ancestor adapter set of the adapter set, or one of the adapters in the ancestor adapter set maps to the control.

13. The computer-readable medium of claim 8, wherein determining whether the adapter set is applicable includes performing double dispatching.

14. A system for transforming data sent from a server to a device and for transforming data sent from the device to the server, comprising:

a device capabilities component that determines capabilities of the device;

a receiving component that receives data sent from the device and directs it to an adapter;

a sending component that receives data from an adapter and sends it to the device;

a device interaction component coupled to the device capabilities component, the receiving component, and the sending component, wherein the device interaction component coordinates communication between the device and an application executing on the server.

15. The system of claim 14, wherein the device capabilities component determines the capabilities of the device by querying the device.

16. The system of claim 14, wherein the device capabilities component determines the capabilities of the device by using a database.

17. The system of claim 14, wherein the adapter is selected from an adapter set that is applicable to the device.

18. The system of claim 17, wherein the adapter set is applicable when an adapter within the adapter set, an ancestor adapter set of the adapter set, or one of the adapters in the ancestor adapter set maps to the control.

19. The system of claim 17, wherein the adapter is selected using double dispatching.

20. A system for transforming data sent between a device and a server, comprising:

means for determining a capability of the device;

means for receiving data sent from the device;

means for sending data to the device; and

means for coordinating communication between the device and an application executing on the server, the coordination means being coupled to the capabilities means, the receiving means, and the sending means.

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